THE VETERINARY RECORD

A Weekly Journal for the Profession.

No. 991. JULY 6, 1907. Vol. XX

Our Twentieth Year.

This week *The Veterinary Record* enters upon its twentieth year, and we may look back upon its career. Ours was the first veterinary periodical to be published weekly, and although a year previous to its appearance the National Veterinary Association had passed a resolution that a weekly journal was necessary to the progress of the profession, there was yet a very general impression—even amongst good judges—that the venture would not be a success. A success it has certainly proved, as far as its circulation is concerned; and it remains to be asked how far it has attained the real object for which it was founded—that of being beneficial to the profession.

We believe that, in various directions, we have succeeded in furthering the progress of the profession. In the first place, we have filled a gap in veterinary journalism. A weekly journal, in which everything of moment can be discussed at once, brings practitioners into a closer union, and stimulates their interest in all professional matters in a manner which is impossible to a monthly one. Correspondence which, before our appearance, was spread over a quarter of a year or more, can now appear in a month, while the subject that evokes it is fresh in the minds of readers. Timely reports of veterinary Societies are also possible, and a mass of general news can be supplied, some of which could scarcely be inserted in a monthly journal.

Beyond this, we initiated full reports of meetings of Council, without which no practitioner can possess any real knowledge of the work of our representatives; and, by so doing, we claim to have introduced a practice which is essential to the progress of a self-governing profession.

Turning from the political to the scientific side of the profession, we believe that here also *The Record* has been useful. It is true that there is still room for great increase in the number of our contributors, but we have nevertheless been able to supply many valuable clinical reports and original articles, and not a few affections as "Dropped elbow," "Pyramidal disease," and "Cab horse disease" would, without *The Veterinary Record*, have been less generally understood by the profession. By translations, also, we have helped our readers to follow the work of their Continental *confrères*. Without being an illustrated journal in the ordinary sense of the word, we have always encouraged the use of photographs and sketches to illustrate cases and specimens, and have never grudged the expense of reproducing them as clearly as possible.

We have maintained the claims of veterinary surgeons as the only experts on disease in animals, especially with regard to Public Health work. At the same time we have always advocated the higher scientific education of the profession, as the sole means of enabling our members to attain the position and recognition which is their due.

As we look back, then, upon the years which have elapsed since our journal was established, we are well satisfied with the progress we have made. In the undeniably great advance which the profession has made during the last two decades, we believe that *The Veterinary Record* has helped in no small degree. We know well that the profession will continue on its career upwards; and our earnest hope is that we, also, may continue to assist in its progress.

Report of the Army Veterinary Service for the Year Ending 31st March, 1906.

This report is fuller than usual, containing, in addition to that by the Director-General, reports by the Principal Veterinary Officers of commands.

First we find General Thomson's report on the whole, and following that Lieut.-Col. Rutherford on the Aldershot command; Col. F. Smith on the Eastern and London commands; Lieut.-Col. Hazelton on the Northern and Western commands; Lt.-Col. Raymond on the Southern command; Lt.-Col. Blenkinsop, Irish command; Col. J. A. Nunn, the South African; and Major E. J. Lawson, Egypt.

Each of the local reports is accompanied by numerous statistical tables upon which brief comments are made. There is also a report by the Professor at the Aldershot School—Major E. Taylor—to whom is entrusted the production of calf-lymph used for vaccination in the Navy and Army. From this we gather that "During the year sufficient vaccine for 107,766 persons has been issued." Results of its use show 99 per cent. of successful vaccinations at home and about 80 per cent. abroad.

From the general report it is seen that the amount of inefficiency from disease and injury was 100·2 per cent.

The number of deaths was 640 or 2·43 per cent. The total strength was 22,218 horses and mules. The average age of horses was just under eight years.

The statistical tables of disease and injury are most interesting and instructive, but the classification might be improved. We quite recognise the difficulty of classifying so as to get diseases similar in cause in one table whilst at the same time studying convenience. Class 1—General Diseases includes simple, catarrhal and bilious fevers, but you have to go to Class 11, zymotic diseases, to find influenza and epizootic fever. Again, class 1 contains anthrax, but glanders is in class eleven.

CLASSIFIED STATISTICAL RETURN.

Total.	Remaining from last Annual return.	Admitted since.	Total.	Cured.	Relieved.	Incurable.	Died.	Destroyed.	Remaining under treatment.	Total
1 General Diseases	82	1618	1700	1354	248	3	15	27	53	1700
2 Respiratory Apparatus	36	1038	1074	706	96	71	117	37	47	1074
3 Circulatory "	5	125	130	64	37	3	18	5	3	130
4 Urinary "	...	27	27	17	7	1	1	1	...	27
5 Generative "	4	28	32	21	9	...	1	...	1	32
6 Digestive "	2	969	971	795	44	26	97	3	6	971
7 Liver and Spleen	1	19	20	15	2	...	3	...	...	20
8 Nervous Apparatus	7	109	116	23	33	9	18	26	7	116
9 Tegumentary	32	1168	1200	1106	30	...	1	4	59	1200
10 Locomotory	316	6546	6862	3150	3042	212	1	156	301	6862
11 Zymotic Diseases	32	603	635	556	9	...	5	29	36	635
12 Visual Apparatus	6	217	223	145	57	11	...	4	6	223
13 Surgical Diseases and Accidents	280	9811	10,091	9281	455	4	24	47	280	10,091
Total	803	22,278	23,081	17,233	4069	340	301	339	799	23,081

[We have copied this table because it may be interesting to some Civil practitioners for purposes of comparison.]

Dropsy is in Class 1 and lymphangitis in Class 11 Discomyces is in Class 1 and botriomycosis is the same class as strangles and variola. This is a little confusing.

Among the general diseases the fevers account for much the larger number of cases, and next comes "asthenia" which we suppose means debility.

Class 2.—Respiratory apparatus. In this class catarrh is the largest cause of illness, and next—pneumonia and pleurisy. There are 55 cases of "asthma (broken wind)," and four of emphysema. Only one case of hydro-thorax suggests that the cases of pleurisy in the Army are taken early and successfully treated.

Class 3.—Circulatory apparatus. Here 25 cases affect the heart, 7 the blood vessels, and 98 are stated as lymphangitis. Surely these last cases would have been more at home in the table of locomotory apparatus.

Class 4.—Urinary apparatus yielded 27 cases, 10 of which are described as azoturia, which is hardly a urinary disease.

Class 5.—Generative apparatus. This is a curious mixture including some vaginal and uterine troubles, a few cases of scirrhous cord, and 15 cases of parturition—which is not a disease. There are three cases of "ovariotomy"—which we believe is an operation.

Class 6.—Digestive apparatus. Here of course colic is the chief cause of illness, and we are struck by the fact that out of 727 cases there is only one death—evidence of good management. Calculus, rupture and volvulus are separately registered.

Class 7.—Liver and spleen show 20 cases. Of these 10 are stated as hepatitis, and not one of them died. Our own experience suggests that diagnosis is not always certain without a post-mortem.

Class 8.—Nervous apparatus, accounts for 116 cases, of which 49 were forms of paralysis, 12 tetanus, 8 vertigo, and 15 cerebral. In this class we find provision made for "lightning stroke" but no victims, and four cases are put down to "entozoa."

In Class 9.—Tegumentary apparatus, the most frequent cases are ringworm, mange, eczema, and erythema. "Cracked-heels" is included here and gives 107 cases. Urticaria is also in this class, but surely would have fitted in better with general diseases.

Class 10.—Locomotory apparatus. Here we find a large proportion of the causes which render Army horses inefficient. There are 6,862 cases, and accidental puncture of the foot has more to account for than any other single cause—1,005 cases. Next comes sprain of ligament, then "splint" and then sprain of tendon. Ringbone, navicular disease and spavin account for 914 cases. There were 548 "corns" and 270 pricks in shoeing. The fractures are interesting. There were 98, and the bones most frequently broken were phalanges 18, tibia 18. Next came the radius 17, the metatarsus 12, the metacarpus 9. In class 13 we find 54 cases of fracture of the pelvis which would be better included as casualities of the locomotory apparatus.

Class 11. Zymotic diseases. Under this old fashioned term we find glanders 8 cases, variola 3, strangles 491, influenza 52, rabies 1, epizootic fever 35, epizootic lymphangitis 44, botriomycosis 1.

The deaths in this class were 34, mostly due to slaughter of glanders and epizootic lymphangitis. Strange to relate the case of rabies was *cured*. If this is not a mistake the remarkable occurrence ought to have been recorded in scientific journals at the time.

Concerning this class of diseases General Thompson says "It is gratifying to find that our efforts to eradicate contagious diseases from the Army have met with such a large measure of success, and I trust the next annual report will show a further improvement." We think the Director-General has good ground for his gratification. Most of us feared that the advent of epizootic lymphangitis in this kingdom was the commencement of a plague that was to be widely prevalent.

Why "Botriomycosis" in this class?

Class 12.—Visual Apparatus. There are only 8 cases of cataract, so we suppose most of the 223 "visual" cases were accidental.

Class 13.—Surgical diseases and accidents are far the largest cause of inefficiency—totalling 10,091 cases. There are 3000 contused wounds and nearly as many "contusions." Injuries by harness caused 1549, mostly saddle or heel-rope galls. There were 9 cases of Poll-evil, and 20 of Fistulous withers.

The report seems to us to show very good veterinary management, but the accidents due to kicks suggest that bales and heel-ropes afford opportunities for idle or vicious horses that might be to some extent prevented.

CARCINOMA IN A TWO-YEAR-OLD DOG.

The rarity of carcinoma in young dogs has induced me to think the following case perhaps worthy of record.

The subject was a male mongrel fox-terrier, two years old, and very fat for that age. He was exceedingly greedy, and was fed with most unreasonable indulgence, and I not uncommonly had to treat him for more or less serious digestive trouble arising from this.

In September, 1899, I was asked to see him with regard to a roundish, somewhat strawberry-like growth—three-quarters of an inch or less in diameter at its base—of fleshy consistence and reddish colour, arising from the skin rather to one side of the tip of the tail. This had first been noticed only a day or two before, and—as the hair around the tip of the tail was not luxuriant—could hardly have been of long standing. The history and the age of the animal led me to the opinion that the condition was of inflammatory origin.

I put the dog under chloroform a day or two afterwards, and excised the tumour. Had I suspected it to be malignant, I should of course have amputated the tail—as it was, I simply cut through the skin around the growth, and easily separated it from the tissues beneath, leaving an open wound, which soon healed.

I took the tumour to Professor M'Fadyean, who kindly examined it microscopically, and found it to be a carcinoma.

I was rather inclined to anticipate a local recurrence, which did not, however, take place.

I subsequently treated the same dog for distemper, and for several other shorter illnesses due to the irrational manner in which he was fed; and thus kept him under observation for just over a year from the time of the operation. Finally, in September, 1900, during the course of an ordinary attack of gastritis, the owners concluded that he was too expensive a pet, and asked me to destroy him.

Not being able to make a complete post-mortem, I removed the tail at its root, and took it to Prof. M'Fadyean, who, after an examination, informed me that he found no trace of carcinomatous tissue.

Remarks. The chief point of interest in the case is, of course, the age of the subject. Fröhner, from his experience, concluded that cancer in the dog is not met with under the age of two years, and in this connection, the case seems a very rare one. I may remark, also, that the tail seems to be a not uncommon seat of cancer in animals.

It might be of interest to inquire in what proportion of these cases the tumour was situated at the *tip*, and how many of the animals thus affected had undergone the operation of docking. This dog had been docked, and I have seen one other carcinoma (also verified microscopically) at the tip of the tail of a horse, of whose history after its removal I have no knowledge.

W. Roger Clarke.

A CASE OF URTICARIA.

Subject.- Brown Waler mare, 14 hands 1 inch, 4 years old. Landed in India (Bombay) in Nov., 1906. From December last to March was in very poor condition, but commenced to pick up in April.

28th April. Off fore knee swollen.

4th May. All four legs swollen up above knees and hocks, œdematous, and a marked line of demarcation at top of swelling. Body covered with slight urticaria. Feeding well. Temperature normal.

7th May. Legs considerably swollen. Body covered all over with large patches of urticaria. Symptoms of bilious fever. Temperature 101·2 Purgative administered:

℞ Aloes Barb. ʒiv.
Hydrarg. subchlor ʒi.
Massa communis. q.s.
ut bolus fecit ʒvi.

9th May. Physic not acted. Swelling of legs, and urticaria as on the 8th. Temperature normal. Conjunctival and buccal mucous membranes still bile pigmented.

10th May. Exercise—one hour morning and evening. Administered:

℞ Spts. terebinth ʒii.
Ol. lini. Oi.
mx. ft. haust.

11th May. Swelling of legs subsides at exercise, but urticaria becomes worse; patches the size of a hand all over the body, but disappear when legs refill after exercise, standing in the stable.

12th May. Urine very scanty, reddish-brown in colour. Specific gravity slightly above normal.

Absence of albumen. Presence of bile. Patient encouraged to drink as much water as possible. Prescribed:

℞ Mag. sulph. ʒii.
Ammon. chlor. ʒiv.
Aq. ad. Oii.
mx. ft. haust.

three times daily. Extra amount of Mag. sulph. in drinking water, and bran mash.

16th May. No improvement. Legs still swollen, and body covered with urticaria patches. Treatment continued. Sweating exercise.

20th May. Marked improvement. Legs not so much swollen. Urticaria slight. Urine healthy, normal amount passed. Administered Liq. arsenicalis in feed twice daily. Sweating exercise.

22nd May. Urticaria appeared. Legs slightly swollen. Commenced giving boiled food. Sweating exercise.

24th May. Urticaria re-appeared. Legs slightly swollen. Administered Mag. sulph. ʒi. in each feed. Sweating exercise.

25th May. Urticaria gone. Legs slightly swollen. Administered ʒiii. Ol. morrhuæ, morning and evening, in the form of a drench.

The pony is now putting on flesh daily, and looking quite healthy, all signs of urticaria have gone, but the legs are still slightly swollen, which entirely disappears on exercise. A curious point about the leg swelling is that it seems to cling to the hocks and knees. Liq. arsenicalis had to be stopped as it seemedto aggravate the existing symptoms.

H. G. Allen, Lieut. A.V.D.

RHODODENDRON POISONING IN A COW.

By Henry B. Eve, M.R.C.V.S.

Subject.—A cow about three years old, the the property of a Kentish farmer.

The animal was turned out to grass in a field along with the rest. At milking time the cowman missed one, and on searching found that it had strayed away into a plantation near, in which there were a lot of rhododendrons growing.

The symptoms presented were those of general dullness, abdominal pain, continual grating of the teeth, grunting, and kicking at the abdomen. The ears were drooping and the head was turned backwards towards the spine, the eyeballs protruded, and looked towards the top of the head. Previous to my arrival the cowman informed me that the cow had been delirious, rushed wildly about the field as if mad, and had turned somersaults, and that he had the greatest difficulty in getting her back again into the stall. I found her down, unable to rise, semi-comatose, and paralysis present. There was considerable tympanitis, and eructation of greenish saliva noticeable; and it was only by examining the vomit, that I discovered the cause of the illness, and in this I found portions of the green leaves of the Rhododendron plant partly chewed. The milk was tinged red and had a sickly, faint odour, which was especially discernible when boiled.

Treatment.—Punctured the rumen with trocar and canula, and gave a strong oleaginous purgative; applied a counter-irritant to the abdomen, and internally antispasmodics in demulcent gruel following on with diffusible stimulants and tonics. The cow ultimately made a good recovery and the milk returned to its normal condition.

ABSTRACTS FROM FOREIGN JOURNALS.

Brachygnathia Inferior (Dog).—By Dr. Vogel, Junr.

A considerable shortening of the under jaw was established in a red dachshund (Fig. 1). This anomaly occasioned no hindrance to the taking of food. The defect, on account of the over-hanging upper lip, was not noticeable (Fig. 2).

Fig. 2. Fig. 1.

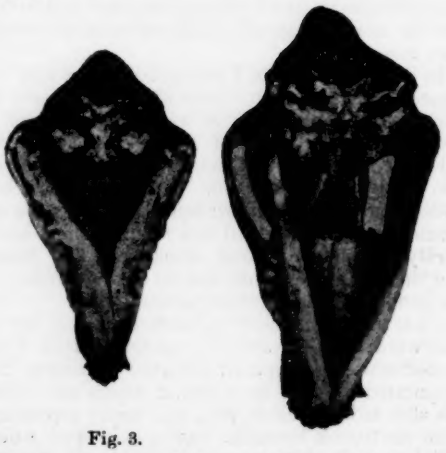

Fig. 3.

The dog dying of distemper I am enabled to present an illustration of the skull from the under side. (Fig. 3).

The 2nd skull is that of a German sheep dog for comparison. Whilst in this one the incisivi pass onto one another and the canines of the underjaw grasp those of the upper, the mandibula in the other one are shortened and bowed to the right.—Ex. *Berliner Thierärzt Woch.*

G. M.

Tuberculosis in a Cat.

Bergeon reports two cases of tuberculosis in a cat contracted through intimate association with phthisical patients.

He remarks that though it is not easy to produce the human disease in the cat by inoculation, still the animal is very susceptible to the disease by living with affected people.—*Rev. Vét.*

Glanders.

Hutrya, of Budapest, has carried out a careful series of experiments, and comes to the conclusions that the ordinary source of infection is by means of the digestive tract, but still he considers that the possibility of aerial infection should not be overlooked; that the lesions in the lungs follow on ingestion very quickly; and that the ulcers in the nose result from the infection of the lungs, the swelling of the sub-maxillary glands being also later developments.—*Zeit. f. Tier.*

F. E. P.

DEMONSTRATION ON THE BACTERIOLOGICAL DIAGNOSIS OF ANTHRAX.

By R. F. C. Leith, Professor of Pathology and Bacteriology, University of Birmingham.

A demonstration on this subject was given by Professor Leith in the University of Birmingham on Friday, 14th June, to veterinary surgeons, County Council authorities, and others interested in the subject. There was a large attendance, among others present or who intimated their intention of being present being Mr. E. G. Wheler, Clarendon Leys, Warwick; Captain Brinkley, Chief Constable, Warwickshire; Messrs. Edward Holmes, Chief Constable, Leicestershire; F. J. Taylor, President Midland Counties' Veterinary Medical Association; and other members of the veterinary profession including Messrs. Parr, Leicester; Litt, Shrewsbury; Gold, Redditch; Renfrew, Broadway; Evans, Stratford-on-Avon; Grasby, Daventry; Butler, Evesham; Wiggins, Market Harboro'; Reg. Over, Rugby; Lewis Green, Dudley; Brooke, Handsworth; J. K. Carless, Shrewsbury; Barber, Alcester; Mackie Whyte, Tenbury; Thackeray, Stafford; Rainey, A.V.S.; Seldon, Cirencester; Manuel, Wolverhampton; Levie, Birmingham; Dale, Coventry; Johnson, Nottingham; Horton, Warwick; Hills, Leamington; Dawes, West Bromwich; Wartnaby, Burton-on-Trent; Beach, Bridgnorth; Higginson, Knockin; C. Dayers, Shrewsbury; R. Murray, Rugeley; Butcher, Cleobury Mortimer; Thompson, Almaston; Hughes, Oswestry; Gascoigne, Lutterworth; Hill, Leek; Woodward, Birmingham; Woodcock, Eccleshall; C. E. Dayus, Craven Arms; Ludlow, Mansfield; Abell, Derby; Secker, Malvern Link; Cureton, Tenbury; Sturgess, Ashby-de-la-Zouch; and Tart, Longton. Messrs. W. T. Wilson, of the Harper-Adams Agricultural College, Newport; Walter Collinge, Department of Economic Zoology, University of Birmingham; Dr. Robertson, M.O.H., Birmingham; Dr. Geo. Reid, M.O H., Stafford; Dr. Wheatley, M.O.H., Salop; Dr. Barwise, M.O.H., Derbyshire; and others were also present.

Prof. Leith delivered a short address on the methods used in the bacteriological diagnosis of anthrax which was illustrated by many lantern and microscopic slides. The following is an account of the main lines of his argument. The bacteriologist was often asked to give a report upon a specimen within such a time after its receipt as did not allow of his carrying out all the necessary tests. Anthrax was a good example. A correct and indubitable diagnosis in cases of anthrax could be given by the bacteriologist provided he was allowed sufficient time for his tests. If earlier diagnosis is required, as is mostly the case, it is well that it should be generally understood that any premature answer is liable to a certain amount of error, and it is further possible and perhaps likely that such premature replies given by different bacteriologists upon the same case may contradict one another. These contradictory results sometimes occurred in practice when two bacteriologists, *e.g.* the veterinary surgeon and the director of a laboratory, were asked to make an independent examination upon the same case and they naturally puzzled the lay authorities (and perhaps the professional ones as well in many cases) before whom the results were laid. It was desirable, therefore, that lay and professional authorities alike should know how much bacteriology could do within any given time in the diagnosis of anthrax. The tests used by the bacteriologist naturally fell into three divisions called respectively (1) the film method, (2) the culture method, and (3) the biological or inoculation method. If he is given sufficient time and proper material to carry out all three, his answer can be given without dubiety and there is no likelihood of a difference of opinion, no matter how many the examiners may be. The time required may be put generally at from three to seven days. It is true that less time may suffice if everything is favourable. For instance the suspected blood be received in the morning a practically pure culture may be secured and inoculated into a susceptible animal by the evening and recovered from the body of the animal by the next evening or the second morning after, *i.e.* in about two days. But this rapidity can rarely, if ever, be secured in routine practice. It generally takes about 24 hours or more before a pure or practically pure culture can be obtained from the blood, and the time elapsing between its inoculation into and the death of the animal, even when such highly susceptible animals as white mice and guinea pigs are used, is very variable, ranging from 36 hours to about seven days. If an answer be required at once only the film method can be used, if within about 24 hours, the culture method can also be employed.

What reliance can be placed upon the film method alone? There are at least two variable factors (1) the individual skill and experience of the examiner, and (2) variations in the case to be examined. The first variant need not be discussed. The second variant requires some attention.

Anthrax has existed among cattle and sheep from very early times. It mostly takes in them a very acute course causing death either without any sign whatever of local mischief, or after a comparatively short period of mucous catarrh. In the most acute cases the period of visible illness is very short, the animal dropping and dying of collapse very soon after it is observed to be ill. In the less acute cases the period of visible illness is longer and more obvious, lasting generally from 12 to 48 hours before death ensues. Not only are fever, a quickened pulse and respiration, and rigors present, but there are signs of local catarrh in the form of a sanguineous discharge from the mouth, nose or bowels. Convulsive fits are not uncommon. In both these sets of cases the collapse and general illness far outshadow the signs of local mischief, and the disease is typically septicæmic, that is the germs of the disease are present in the blood. Bacilli are also found within the bloody discharges from the mucous membranes.

In horses and pigs the disease runs a slower course, and there is more time for well marked local signs of disease to appear. These generally take the form of great and progressive enlargement and œdema of the tissues which may go on to actual masses and ulceration

in the region of the jaws and neck. The bacilli are to be found within the tissues and in the discharges from the local sores, but they are not found until the later stages, if at all, within the blood.

In man the common form which the disease takes is the formation of a local sore—the malignant pustule at the site of entrance of the bacillus, comparable in some respects to the local lesions in horses and pigs. The bacillus is present within the tissues towards the margin of the sore, particularly within the vesicles, but it is not present in the blood. It is rarely found within the blood in any numbers, even in fatal cases. It is therefore not a typically septicæmic disease in man, and often not in horses and pigs.

In the examination by the film method the fluid must be taken from the proper place—from the blood in cattle and sheep (the dorsal vein of the ear is usually selected) and from the local lesions in horses, pigs, and man. The fluid should be examined in a hanging drop as the *Bacillus anthracis* is non-motile, while two, at least, of the germs with which it may be confused—the *Bacillus subtilis* and the *Bacillus of malignant œdema* are both motile, the former actively and the latter sluggishly. Their motility is increased by gentle heating. Thin films of the fluid are spread upon several clean slides free from grease. In the case of the blood this is best done by collecting a drop of blood upon the surface of the slide near one end, placing the edge of another slide upon it at an angle of about 45, and drawing the blood over its whole surface. By this means a fairly uniform thin film of blood is obtained. These films are allowed to dry in the air and then fixed by gentle heat. Passing the slide, film side uppermost of course, slowly through a flame two or three times does very well, care being taken not to overheat. The slides should not be made hotter than to feel comfortably warm, *i.e.* a heat of a little more than that of the blood. Almost any of the ordinary stains may be used in watery solutions, *e.g.* methylene blue, Löfflers' blue, carbol thionin blue, gentian violet, dilute fuchsin, and the individual worker will doubtless choose the one he is most accustomed to work with. They should always be filtered on to the slides. Carbol thionin blue is one of the most generally useful and rapid of these stains. After it has been acting for a few minutes it is washed off with water, and the film dried with blotting paper aided by gentle heat. The film may now be examined microscopically by placing a drop of castor oil directly upon it and using a 1/12 oil immersion lens. A cover glass is not necessary unless it is desired to protect the films from dust for further use, and if so a cover glass can be placed upon the oil in the same way as with Canada balsam. It is true that the bacilli may be seen with less power than a 1/12 oil immersion, but the latter gives much the best definition and picture.

The bacilli are seen as the well known dark blue rods with a bright violet tinge. They are sometimes likened to cigarettes arranged end to end, but too much stress must not be laid upon their square cut ends. They are often rounded. The long threads formed of many bacilli placed end to end, so typical of cultures, are never seen in the blood of animals or in the fluid taken from the vesicles of a malignant pustule. A thread rarely shows more than three or four segments. When long segmented or unsegmented threads are seen they indicate the presence of another germ, *e.g.*, malignant œdema. Polymorphous leucocytes with their nuclei of a deep purplish blue colour are generally seen in the film, but the red blood cells are indistinct, the heat not having been sufficient to fix them. When they are seen they have a pale green colour.

Another film should be stained by Gram's method, for the anthrax bacillus is Gram positive and stands out as a dark blue rod against a general red background, if a red counterstain be used. It is true that Gram's method is not a good one to employ if only one film be stained, but it is a useful adjuvant, for it serves to distinguish anthrax from the Gram negative malignant œdema bacillus. This method requires more experience in its use than ordinary stains, and errors are apt to arise both from imperfect reagents and under or over-decolorisation. It is important to remember that all Gram positive germs look larger by Gram than by any other method of staining.

Another film should be stained by methylene blue, either ordinary or with a littlle alkali added as in Löffller's blue. In what is known as M'Fadyean's reaction, Grubler's pure methylene blue has given in Professor Leith's hands the best results. A rather thick film is preferable to a thin one in this test. Around the anthrax bacilli, blue in colour, is a variable amount of a violet or purplish-red material. It is either finely or coarsely granular, and is always seen around the bacilli. It may be confined to this region looking like an irregular coating to the bacilli, or it may be more widely distributed, but it is always best marked in the neighbourhood of the bacilli. It is still present and may be very distinct when the bacilli have almost or entirely disappeared. It may be so abundant as to be apparent to the naked eye. It has never been found in the blood of animals dying of any other disease, though it may be indistinct in true anthrax cases, particularly in thin films.

A further film may be stained by Johne's process. A 2 per cent. watery solution of gentian violet is used, and gently heated till the steam rises. The film is then washed in water and dried. A 1 or 2 per cent. solution of acetic acid in water is now allowed to act on the film for a few seconds, and then washed off with water. The film is dried and examined in cedar oil as before, but a better result is given if it be mounted in water, a cover-glass being placed over it before it is dry. By this method the purple coloured anthrax bacillus exhibits a distinct though narrow capsule which other bacilli closely resembling it do not show when similarly stained.

Other stains and other methods might be employed, but those above mentioned take us as far as we can go by the film method of examination. In many cases it is sufficiently conclusive to enable us to give a positive diagnosis, but in a certain number there remains room for doubt.

Among the difficulties which arise the following are the most important (1) the bacilli may be so few in number as to escape detection or to be recognised with difficulty, (2) bacilli may be entirely absent, (3) bacilli may be present which so closely resemble the anthrax bacillus as to mislead the observer. The first difficulty is to be met by a patient search of more than one film if necessary.

The second and third hang together in some measure. The entire absence of bacilli from the blood may mean either (*a*) that the case is not anthrax, (*b*) that it is anthrax which has not yet become septicæmic, or (c) that it is anthrax which was septicæmic before death, but has now—at the time of making the examination, lost the bacilli from the blood. The first decision can be made only after the exclusion of the other two. Non-septicæmic anthrax can be guarded against by a proper attention to the local lesion. The third alternative—that the anthrax bacilli, although at one time present, may have entirely disappeared by the time the examination is made—is closely connected with the appearance of other bacilli in the course of the natural putrefactive processes which occur in all carcases. Many of these putrefactive bacilli closely resemble the anthrax bacillus both morphologically and in their staining reactions. The *Bacillus* of *malignant œdema*, *B. subtilis*, *B. mycoides*, *B. mesentericus*, and varities of *B. Proteus* among others may be specially mentioned.

The first of these is the most important. It is a common inhabitant of soil and of the intestinal canal of animals. The others occur also within the intestines in varying frequency. Immediately after death, sometimes even before it, they invade the tissues and blood, multiply therein and lead in time to the dissolution and disappearance of the anthrax bacilli to which the death of the animal was due. They may thus lead to error in a double way—to a diagnosis of *not anthrax* in true anthrax cases, when their true nature is recognised and no anthrax bacilli are seen; or to a diagnosis of *anthrax* in cases not anthrax, when they are mistaken for true anthrax bacilli.

The putrefactive changes through which these difficulties arise vary considerably in their character and rapidity of action according to several influences, among the most important being the temperature and moisture conditions which prevail. They are therefore more active in summer than in winter and it is not possible to lay down hard and fast lines about them or to state any limit of time within which they are certain to bring about the disappearance of anthrax bacilli from the blood and tissues. This may happen very quickly in some cases, slowly in others.

A distinction must of course be drawn between the bacilli and their spores. Spores are not found within the living body in anthrax, whether the bacilli be present within the local lesions only or be generally distributed throughout the blood. Neither are they formed within the dead body provided the carcase be not opened. A free supply of air is necessary before the bacilli can spore, and this is not present within tissues either of the living or unopened dead body—not even within the lungs, though some do hold that a certain amount of spore formation may occur within the lungs after death. Professor Leith has never found any evidence of it in the lungs of animals dead either of experimental or natural anthrax, though in the latter his opportunities for determining this point in suitable cases have been comparatively few. Putrefaction has then in carcases to deal only with the bacilli, whose powers of resistance are comparatively feeble, and it may easily bring about their disappearance from the blood and tissues within a few days. If M'Fadyean's reaction be distinct in such cases, a definite diagnosis of anthrax may still be made.

The second line of investigation—the culture method is a very valuable one. It is advisable for the bacteriologist to make cultures in all cases whenever the material reaches him. Agar plates are most suitable. They are inoculated and incubated at body temperatures. The anthrax bacillus is a quick grower, and usually appears in small characteristic colonies within 6 to 12 or 18 hours. One of these colonies should be picked out and a fresh plate inoculated therewith and the process repeated if necessary until pure anthrax colonies are obtained, as shown by stained and unstained films. It is often possible to say from an examination of the first plate that anthrax is present, and it is rarely necessary for practical diagnostic purposes to isolate it in pure culture. A culture is always obtainable when anthrax bacilli are present within the blood or other fluid used for inoculation and the characters of the culture constitute a valuable appeal from the diagnosis made by means of the film method. It serves to clear up doubtful cases and corroborates others. It is not infallible, and absolute certainty can only be obtained by injecting a little of the pure, or sufficiently pure culture into the body of a susceptible animal, *e.g.*, a white mouse or a guinea-pig. If the animal dies, films should be made from the spleen or the blood, though the bacillus is present within the blood-vessels of every organ and tissue of the body, and cultures should be made from the heart's blood. If the bacillus is thus shown to be anthrax there is no longer room for the shadow of a doubt. It is rarely necessary in practice to have recourse to this last test, but strict scientific verification requires it. A less scientific though more speedy method is to inject some of the suspected fluid directly into the animal without waiting for culture growth. If the fluid contains anthrax bacilli in sufficient numbers and purity the same result is obtained as if a pure culture were used, but if the anthrax bacilli be either very few or greatly overgrown by other bacilli, the animal may survive or death may follow from other causes, the anthrax bacillus dying out, or at least not having had time to multiply and distribute itself throughout the circulating blood When the fluid is used directly it is best to inoculate it by scarification of the skin, as in vaccination with calf lymph against small pox, to exclude the malignant œdema bacillus or other similar anaerobe.

The bacteriological diagnosis of anthrax is therefore not always a simple and immediate possibility. It often involves tests which it is unreasonable to expect the veterinary surgeon in busy practice to carry out. The film method alone is all that he can be called upon with reason to employ, and hence it is necessary to associate him with a consultant bacteriologist with laboratory resources at his command which enable him to employ all the methods necessary for a complete diagnosis. An accurate estimate of the number of cases of anthrax can be reached only in this way, and its practical importance to the interests of both public health and agriculture need not be emphasised. The veterinary surgeon should not be asked to give more than a tentative diagnosis based upon clinical examination of the case and a bacteriological investigation by the film method. If he thinks the case is anthrax, the proper requisite preventive precautions should at once be taken after sufficient material has been sent to the consultant bacteriologist, to enable him to make a conclusive diagnosis, and his report should be awaited before the final official decision is made. The opinion expressed by the veterinary surgeon and the bacteriological consultant may not be the same, and indeed experience had shown that they not infrequently differed materially. It would be well if an arrangement could be made whereby this would be avoided. It tended to discredit both the advising parties with the county authorities and the farmers, and was distinctly unfair to veterinary surgeons. The microscopic demonstration which Professor Leith arranged for them showed how difficult it often was to make a diagnosis by the film method alone* Over 30 specimens were shown, some of which represented stages in the isolation of cultures, and the results of the biological test, but there were also close on 30 microscopes exhibiting films made from actual cases sent in for diagnosis as suspected anthrax. There was not much room for doubt about some of them, but in at least 15 of them the diagnosis was difficult. In three of them the morphological characters were against anthrax, and yet they were proved by culture innoculation tests to be anthrax. In 12 of them the characters resembled anthrax more or less closely, so much so in some cases as to mislead almost anyone, and yet not one of them was anthrax. And this was only a part of one bacteriologist's experience. He thought it showed conclusively how unfair it was to ask either the veterinary surgeon or his consulting bacteriological colleague to give a decided opinion from the film method alone. His own practice was to make cultures in every case, and biological tests where necessary.

In inviting discussion on the general question, he referred to the necessity for providing the consulting bacteriologist with a sufficient supply of blood for the

* An opportunity was given at this period of the proceedings for an examination of each of the microscopes by every one present, each person writing down his own diagnosis for future reference.

preparation of films and cultures. The ear was generally received by him, and while in many cases it contained enough blood, in others it was practically bloodless. When the ear was selected, it ought in all cases to be cut off close to the root and packed, without contact with an antiseptic, in such a position that the blood would not tend to run out from the veins. Tip uppermost was best, and in all cases it should be immediately surrounded by gutta-percha tissue or some form of waterproof material, and not with wool or tow into which the blood might drain away and be unavailable for examination. He further suggested that the veterinary surgeon should make, say four, extra films, when making these for himself, and after fixing them by heat, send them at once by post or otherwise to the consulting bacteriologist, who after staining and examining them could reply by telegram. In this way the veterinary surgeon could often ascertain his colleague's tentative opinion within 24 hours, and though giving his own clinical opinion at the time of seeing the case, yet reserve his bacteriological results until he and his colleague had consulted together.

He did not see any harm from delay so long as proper preventive precautions had been taken. An interesting discussion followed in which the following veterinary surgeons took part: Messrs. Litt, Parr, Gold, Renfrew, Evans, Grasby, Butler, Wiggins, Over, Brooke, Green, and also Messrs. Brinckley, Wheler and Holmes, representatives of the counties.

It was generally agreed that the first duty of the veterinary surgeon was to take preventive precautions in all cases which appeared to him to be suspicious, and that if this were done there was no particular reason why the bacteriological diagnosis should be announced prematurely. Most speakers preferred cremation to burial of the carcase. Some interesting remarks were made as to the conditions under which spores were formed.

The diagnosis of anthrax in the diseased carcase exposed for sale by the butcher was referred to, and it was pointed out that the muscles, though they might have a suggestive colour and smell, yet were not suitable for demonstrating the bacillus microscopically, owing to the bloodless condition of their capillaries, and that a vein or some loose vascular tissue should be selected for this purpose, if none of the viscera was available.

In the causation of apparently spontaneous anthrax, artificial food was held to be responsible by some speakers and natural food by others. The fact that anthrax was liable to break out in cattle feeding along the lines of watercourses, or in meadows likely to be flooded by neighbouring streams, was referred to as pointing to the germs being washed downwards from some polluted ground.

It was stated that the ear was often wholly devoid of blood, and certain veterinary practitioners preferred to remove a part of the tail, and others one of the hoofs, for transmission to the consultant. The difficulty of securing a speedy consultation with the latter in cases occurring in the country at a distance from a post office or a railway station was spoken of, but it was generally agreed that it was desirable to secure it, and that all difficulty in doing so would be removed if a premature reply was not required from either the veterinary surgeon or his colleague.

A hearty vote of thanks was awarded to Professor Leith for his address and demonstration, and the hope was expressed that similar meetings treating of this and other kindred subjects might take place within the university in the future.

THE INSPECTION OF DAIRY COWS IN EDINBURGH.*

The cows in the byres in Edinburgh are of good quality, most of them being of the Shorthorn variety. Some dairymen prefer Ayrshire, and a few have Irish cows.

The number of byre premises in the City is 105, and the number of cows contained therein 2,944, being practically the same number as last year.

2211 visits were made to byres inside the City, and cleanliness in the cows and their surroundings was always insisted on, especially their freedom from all parasitic skin diseases. Each cow is examined individually as to her general health, and in all cases in which there was any abnormality of the udder a sample of the milk was taken, centrifugalised, and examined microscopically for the presence of tubercle bacilli or other organisms. Whenever a cow developes a cough search is made in the vicinity for expectorate, and when found this is carefully taken up and examined for tubercle bacilli.

In 20 cases tubercle bacilli were found in the expectorate, and in five cases in the milk. In all these five cases the disease was detected in its early stages.

Several visits were paid to byres beyond the City boundary, and in one of these a cow was detected in an advanced stage of tuberculosis. The removal of this cow was immediately ordered, and she was sent to the knackery.

Two special visits were made under Section 60 of the Public Health Act on account of outbreaks of diphtheria in the City, but in neither instance could the disease be traced to the milk supply.

There was one outbreak of anthrax, in which one cow died of the disease. The premises were carefully watched for some time, but the disease did not spread. Thorough disinfection was carried out.

One tuberculous cow was ordered to be removed from a dairy farm, and was taken away on the following day, but no information could be obtained as to where she had been sent. Several months afterwards this cow was discovered grazing in an enclosed field and suckling two calves. She had fits of coughing every ten minutes or so, and during her coughing fits small specks of purulent matter containing tubercle bacilli were forcibly ejected from her mouth. This animal was literally sowing the grass field with tubercle bacilli. The Medical Officer now persuaded the owner to send her to the slaughterhouse. When slaughtered the animal was found to be in an advanced stage of the disease.

Shortly afterwards a young heifer that had grazed in the field with this cow was attacked with tuberculosis in a very acute form and had to be slaughtered.

If the Local Authority had power to seize and slaughter such animals, especially those with tuberculosis of the udder, giving the owner part compensation, it would materially assist in preventing the spread of this disease to other animals and to man.

Contagious Mastitis.—This disease occurred in a dairy beyond the City boundary, and although the premises were thoroughly disinfected and the cows replaced several times the disease still persisted. The milk of the affected animals was quite unfit for food. The premises are now vacant.

The following tables show the number of microscopic examinations made, with the results obtained, the number of cows ordered away under Section 29 of the Edinburgh Municipal and Police (Amendment) Act, 1891, and their destination as far as information was obtainable.

* From the Annual Report of the Medical Officer of Health of the City of Edinburgh for the year 1906.

Microscopical Examinations.

Expectorate	63	specimens.
Milk	45	„
Uterine Discharge	3	„
Blood for Anthrax	1	„
Total	112	specimens.

Of the tuberculous cows ordered to be removed from byres—

Tubercle bacilli were found in the expectorate in	20	cases.
„ „ „ in the milk in	5	„
„ „ „ in uterine discharge in	1	„
Clinically tuberculous, but in which no expectorate could be obtained	5	„
Total	31	cases.

Cows ordered to be removed from byres under the Edinburgh Municipal and Police (Amendment) Act, 1891.

Tuberculosis	27	Cows.
Suppurating Udder	4	„
Septicæmia	4	„
Pneumonia	2	„
Rheumatism	3	„
Phtheiriasis	1	„
Total	41	Cows.

Destination of Cows which were ordered to be removed, as far as information was obtainable.

Edinburgh Slaughterhouse	10	Cows.
Leith	12	„
England	7	„
Knackery	4	„
Bathgate	2	„
Lanark	1	„
Polmont	1	„
Unknown	4	„
Total	41	Cows.

JOHN RIDDOCH, M.R.C.V.S.
Veterinary Inspector.

TUMOURS IN WILD ANIMALS.

Dr. HARLOW BROOKS, who holds the appointment of Pathologist to the New York Zoological Park, and is also Assistant Professor of Pathology to a medical college, has written a brief but important article on neoplasms in wild animals. He distrusts reports made by the general zoologist on the one hand, and by the pathologist of strictly laboratory experience on the other. Most of the "growths" or "tumours" described by zoologists and naturalists are found on microscopical examination to be inflammatory. Domestic animals, as well as all wild beasts, big or little, which have lived for some time in captivity, are excluded as not coming within the scope of Dr. Brooks' subject. The authorities of the Zoological Park will not admit a single addition to their collection without a thorough veterinary inspection. This regulation has been in force for five years, during which time not a single animal has been excluded for a new growth formation. In 2647 mammals under Dr. Brooks' inspection, only 1 case of true neoplasm has been noted; 744 of these animals underwent a complete necropsy without a single new growth being found, excepting in that one case. The exception occurred in a female racoon dog, *Nycterentes albus*, from Japan. It had lived, let us remember, for two years in captivity, and, moreover, zoologists have suggested that *N. albus* is an albinoid, and so far not absolutely normal, variety of *N. procyonides*, the "racoon-like dog" of which specimens are sometimes to be seen in our own zoological collections, a true dog closely allied to *Canis*, and only resembling the racoon, which does not belong to the family *Canidae*, in external appearance. Still the specimen in question was a pure wild animal. The tumour which caused its death was a myxosarcoma of the left ovary, forming a large retro-peritoneal mass; there was partial intestinal obstruction. Those who are even more sceptical than Dr. Brooks may suggest that during the two years' captivity the animal did not live under normal sexual conditions. In conclusion, Brooks declares that the rarity of true tumours in wild animals of pure species supports those theories which attribute neoplastic formations to perversions of cell growth—a tendency well recognised as more frequent in animals or people of imperfect development or of mixed race, or in such as live under more or less artificial environment. That true tumours are relatively rare in wild animals, particularly in the gregarious North American ruminants, the wapiti, caribou, prong-buck, etc., which Dr. Brooks has been able to examine in considerable numbers, seems, in his opinion, to disprove the theory of the infectious origin of new growths, or their complete dependence upon such extraneous causes as parasitic infection, or peculiarities in food, drink, or habitat.—*B. M. J.*

TUBERCULOSIS—*TYPUS BOVINUS.*

Dr. JOSEPH STARK, writing to *The British Medical Journal*, relates two cases of general infection following operation on local disease. He says:—

In the first case a child (male), aged 2 years, had an attack of acute ascites, which I put down as tubercular in origin, although there were no enlarged glands to be found. The child made a good recovery, but about a year afterwards it came again under my care suffering from tubercular periostitis of a rib with abscess. I advised surgical interference. The rib was scraped and a tuberculous necrosis removed. The wound healed nicely, but the child developed tubercular meningitis, and died about five weeks later.

The second case was a tuberculous knee. Excision of the joint was performed, and the child recovered from the operation but showed symptoms of meningitis four weeks later, and died of that condition about one year later.

These two cases tend to prove that there is a great danger of general infection by interfering with localarised tuberculosis, and also that tubercular meningitis, bone lesions, and peritonitis are caused by the same bacillus—namely, the *typus bovinus*. That children are more susceptible to bovine tuberculosis is shown by the preponderance of bone, meningeal, and abdominal lesions in children as compared with adults.

A Milk-borne Epidemic of Scarlet Fever.

The Medical Officer of Health of Cardiff (Dr. E. Walford) has recently reported upon the circumstances attending an outbreak of scarlet fever during the second fortnight in May. Of the 37 cases of the disease notified during this period in a particular district, 21 were supplied with milk from the same dealer, and upon investigation it was found that the daughter of the farmer who supplied the milk was suffering from scarlet fever and that two other members of the family had had sore throats but no other well-defined symptoms. About 13 per cent. of the 150 houses supplied from this farm were infected. The supply of milk was promptly stopped and the outbreak was checked.—*Lancet.*

DISEASES OF ANIMALS ACTS 1894 TO 1903. SUMMARY OF RETURNS.

Period.		Anthrax.		Foot-and-Mouth Disease.		Glanders (including Farcy)		Rabies. Cases Confirmed.		Sheep Scab.	Swine Fever.	
		Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Out-breaks	Ani-mals.	Dogs.	Other	Out-breaks	Out-breaks.	Slaugh-tered *
GT. BRITAIN. Week ended June 29		18	19			11	40			4	70	292
Corresponding week in	1906 ..	19	25			22	39			1	26	315
	1905 ..	17	17			24	33			..	32	145
	1904 ..	11	11			47	65			1	46	168
Total for 26 weeks, 1907		609	814			464	1140			400	1343	6245
Corresponding period in	1906 ..	519	770			569	1053			286	634	3440
	1905 ..	535	750			627	1087			643	422	2024
	1904 ..	527	818			769	1387			1056	798	3863

Board of Agriculture and Fisheries, July 2, 1907.

IRELAND. Week ended June 22		..	..	..	..	..	..	..	..	1	..	44
Corresponding Week in	1906 ..	1	5	..	..	..	..	..	..	1	2	2
	1905 ..	..	..	..	..	1	2	..	..	1	2	5
	1904 ..	..	..	..	..	1	1	..	..	1	5	120
Total for 25 weeks, 1907		1	3	..	..	1	1	..	..	167	62	1147
Corresponding period in	1906 ..	3	7	..	..	3	10	..	..	144	42	499
	1905 ..	2	2	..	..	12	33	..	..	221	40	452
	1904 ..	2	2	..	..	5	21	..	..	362	121	1705

Department of Agriculture and Technical Instruction for Ireland, (Veterinary Branch), Dublin, June 27, 1907.

NOTE.—The figures for the Current Year are approximate only. * As Diseased or Exposed to Infection.

A Committee on Distemper in Dogs.

The President of the Board of Agriculture and Fisheries has appointed a committee to inquire into the nature of distemper in dogs in Great Britain and the methods of its infection and to report whether any, and, if so, what, preventive or remedial measures, exclusive of ordinary medical treatment, can with advantage be taken with respect to it. The committee is constituted as follows: Lord Middleton (who will act as chairman), the Duke of Beaufort, Lord Leconfield, Sir John M'Fadyean, M.B. Edin., M.R.C.V.S., Mr. Edward Barclay, Mr. Stewart Stockman, M.R.C.V.S., (chief veterinary officer to the Board of Agriculture and Fisheries), and Mr. William Musgrave Wroughton. Mr. James Ralph Jackson, M.R.C.V.S. (veterinary inspector, Board of Agriculture and Fisheries, 4, Whitehall Place, S.W.), will be secretary, and the cost of the inquiry will be defrayed by subscription and guarantees, no charge in respect of it falling upon public funds.

A correspondent, in referring to the appointment of this committee, has been moved to assume the majesty of the editorial plural, and to deliver himself as follows:—

"We think it a pity that these gentlemen should waste their time and other peoples' money in endeavouring to discover 'preventive or remedial measures' for one of the few diseases that are directly beneficial to man. By annually destroying hundreds of disease spreading pests that make our streets barely fit to walk in, distemper is truly a blessing rather than a curse."

[We refrain from criticising our correspondent's exposition of his somewhat peculiar views. Should he care to amplify his arguments for the restriction—or possibly extermination—of the canine race, these columns are open to him; though we scarcely anticipate that he will find many supporters amongst his professional brethren]

AN ALLEGED "SHIVERER."

In the Court of Session, Edinburgh, Lord Mackenzie heard evidence regarding the purchase and rejection of an alleged "shiverer," and the examination of said animal by a host of veterinary experts The horse in question was a three-year-old Clydesdale colt bred by Mr. Stephen Lee, Birtley Farm, County Durham, and purchased from him at the price of £42 on 22nd January last by Mr. Jas. A. Wallace, Claycrop, who afterwards rejected the animal on the ground that he was a "shiverer." The pursuer, Mr. Lee, who sued for the price of the horse, was represented by Mr. Macphail, and the defender by Mr. M. Macmillan.

The first witness was Mr. Mark Lee, a son of the pursuer. He deponed that Mr. Wallace came to Birtley Farm late in the afternoon of 21st January to see the horse, but as the light was failing by that time defender said he would come back next morning and see if he could buy the animal. Defender did so, and spent about an hour and a half in examining the horse. Defender "backed" the horse, and turned him round and examined him in every way. Witness denied that defender ever asked whether there was any "shivering" about the animal. In that part of the country shivering was known by the local name of "cramp." Defender bought the horse for £42, which was paid by cheque, and on

the following day, 23rd January, the horse was sent on at defender's risk and cost to Kirkinner. On the following day pursuer received a telegram from defender stating that the horse was a "shiverer," so that he declined to take him, and had stopped payment of the cheque given in payment of the animal. Some correspondence ensued, and finally the pursuer wrote to say that if the horse was returned in the same condition as that in which it was despatched he would take it back, as he had no doubt he would get the same price for it elsewhere. The horse was returned on 30th January, and on its arrival at Bishop Auckland was found to be in a crippled or paralysed condition. It could hardly stand on its hind legs, and dragged its hind legs badly. The horse was put into a coal shed near the station, where it was examined the same night by Mr. Deans, M.R.C.V.S. As pursuer refused to take the horse back it was placed at livery at the expense of the railway company, by whom it was shortly afterwards sold to defray expenses. The horse—whose name and pedigree were not stated—was now owned by a contractor, and was in regular work in a stone cart. It had never shown any "shivering" or "cramp" while in pursuer's possession, and it was working all right now. Witness deponed that he knew the symptoms of "cramp," but he could not say whether the excitement of a railway journey would cause latent "cramp" to make itself manifest, as he had never had any experience of "cramp" in his father's stud. They kept a good class of sound mares, and never had any such disease in their stud.

Mr. Stephen Lee, the pursuer—an old man who seemed in frail health and was very hard of hearing—generally corroborated. He could not say for certain whether defender had said anything about "shivering" to the former witness, as he was not with his son and defender all the time that defender was bargaining about the horse.

Mr. Deans, M.R.C.V.S., Bishop Auckland, was next called as the leading expert witness for the pursuer. He had been called in to examine the horse about 9 p.m. on the day when it was returned by defender. He found the horse standing in a coal shed in a semi-paralysed condition. It could not move its hind legs right at all, and he found partly over but mainly at the one side of the back-bone in the lumbar region a swelling about the size and shape of a saucer. He was convinced that the trouble from which the animal was suffering was partial paralysis, resulting from an injury which had caused the swelling over and at the side of the spinal column. That swelling was very painful, and the horse "winced" badly when he t uched it. There was no symptoms of "shivering" or "cramp" about the animal. The horse trailed his hind legs behind him, whereas a "shiverer" jerked up his hind legs. When a "shiverer" is made to back, his hind legs precede him. (Laughter.) He had examined the horse frequently since then, and never found any sym.ptoms of shivering about him. He examined him again on 11th February, and found the horse was greatly recovered, and the swelling at the side of his spine had subsided. The part, however, was completely bare of hair, and close to the spinal processes he found a cicatrix and a small nodule. He took a plaster cast of that (No. 10 of process). The horse was now working every day in a stone cart drawing loads of 30 cwt. each, and to his mind that clearly proved that he could not be a "shiverer." He had been a student of the Glasgow Veterinary College under Principal M'Call, and had heard his lectures on the subject of "shivering." He had read the evidence of Principal M'Call which had been taken by commission the previous day on account of the Principal having been summoned to meet in consultation with the Board of Agriculture, but he did not agree with the Principal's evidence. Neither did he agree with the Principal in saying that shivering was a cerebro-spinal disease. In his opinion "shivering" was purely a spinal disease, and not a cerebral disease at all.

In cross-examination witness was sure he could detect "shivering" if it were about a horse by the usual tests—backing him, turning him suddenly round, giving him a drink of water, or throwing cold water on his "parts." Questioned as to whether the excitement of a railway journey would not be likely to cause latent "shivering" to become manifest, witness replied that when he saw the horse the night he came off the train from Kirkinner the horse was not excited, but was very much depressed. Witness said he had examined the colt later on along with Mr. Snarry of York, who agreed with him in holding that it was a case of temporary partial paralysis caused by the injury which had resulted in the swelling on the animal's back over and at the side of the spine. He had examined the colt also along with Mr. Dobbing of Messrs. Dobbing and Taylor, Darlington. Questioned as to whether Mr. Dobbing had expressed the decided opinion that the horse was a bad "shiverer," witness caused great laughter by saying that that was because Mr. Dobbing was veterinary adviser for the North Eastern Railway Co., and in the event of its being decided that the affection from which the horse was suffering was due to an injury sustained on the railway journey he would have to give evidence for the company. The laughter was continued when defender's counsel asked whether it was because witness was to give evidence for the pursuer in this case that he formed the opinion that the horse was not a "shiverer."

Mr. Snarry, M.R.C.V.S., York, said he corroborated the evidence led by Mr. Deans. In cross-examination, however, he admitted that the injury which had resulted in the swelling over and at the side of the spinal column was not sufficient of itself to cause the partial paralysis from which the horse had suffered, so that there must have been some other cause at work. He also admitted that in a case of latent shivering the excitement caused by a railway journey might cause the disease to manifest itself.

The other evidence for the pursuer was briefly heard, as counsel on both sides were evidently desirous of having the proof compressed within the one day's time. A groom at the livery stables gave evidence as to the animal trailing its hind limbs instead of jerking them up, and elevating its tail. In cross-examination, however, he was led into admitting that the animal looked as if it were suffering from cramp. Mr. Smith, an auctioneer, deponed that he knew the horse well since it was a yearling. He had seen it not only at Birtley Farm, but at several shows, and there was no shivering about it or he would have seen it at once. He was sure that any one who had experience of "cramp" could tell in a moment whether a horse had that disease or not. Mr. Hops, a neighbouring farmer, corroborated. Mr. Alderson, contractor, who now owned the horse, said the animal was in regular work in a stone cart, and he never saw anything wrong with the animal.

This concluded the case for the pursuer.

Mr. Jas. A. Wallace, Claycrop, the defender in the case, was then examined. He was certain that when he was at Birtley Farm on the 22nd January examining and bargaining about the horse he pointedly asked pursuer's son whether he was sure there was no "shivering" about the horse, and pursuer said there was none. He took that assurance as a guarantee that the horse was free of "shivering." The horse arrived at Kirkinner about 5 p.m. on the 23rd January, and his son was at the station to take delivery of the animal. It was getting dark then, but the horse seemed to walk all right up from the station, and on arrival at the farm the animal was put in a loose-box for the night. Next morning at daybreak he told his son to bring out the colt, and they would see how he was looking. His son

put the halter on the colt and was turning the colt round in the loose-box when he (defender) distinctly noticed the well known symptoms of "shivering," and said, "I've been cheated again. He's a shiverer." He knew the symptoms of that disease well, and was sorry to say he had frequently been "done" by "shiverers" before. He had had to return some "shiverers" since. He at once wired the pursuer and stopped payment of the cheque. After the pursuer agreed to take back the horse and "cry quits" if the horse was returned in good order, he despatched the animal in as good order as he had got him. He was certain the animal had sustained no injury while it was on his farm. Question: "You have heard the evidence given by these veterinary gentlemen from England?" (A.) "Yes, sir, but I'm sorry to say I can't believe all that they have said." (Laughter.)

Mr. Wallace's two sons corroborated. One of them said he knew of defender having rejected an animal on the ground of "shivering" since this one was returned, but the other was not clear on that point.

Mr. John J. Bell, M R.C.V.S., Carlisle, said he examined the horse on 1st April, and found clear evidence to show that the animal was a bad "shiverer." He knew "shivering" well, for a large number of horses bought and sold at the Carlisle Auction Marts were brought to his place to be examined. After the excitement of a railway journey to the auction marts the affected animals might or might not show symptoms of "shivering" on being brought to the stables, but they almost invariably showed it next morning. "Shivering" was very difficult to detect. Of course if you saw the characteristic symptoms you could tell it at once, but a "shiverer" might go for some considerable time without showing the characteristic spasmodic action of the hind limbs and tail, and in the case of a "suspect" he would require more than one examination of the animal before he could be sure that the disease was not there. The usual tests —backing, turning quickly round, giving the animal a drink, etc.—did not always cause a "shiverer" to show the characteristic symptoms. As to the animal being now in regular work in a contractor's cart, he could quite understand that. There were plenty of "shiverers" that were able to work away for a time. When he examined the horse on 1st April he made a minute inspection of him all over, and found there was no trace of any swelling or cicatrix or place bare of hair on the back or anywhere else, and he did not believe that there had been any swelling, cicatrix, or place bare of hair such as had been described by Mr. Deans on the horse a month before. As to the plaster cast taken by Mr. Deans and showing a slight elevation at the side of the spinal process there was nothing abnormal in that—nothing but what could be found in a normal state on any horse. "Shivering" was a congenital disease, and this horse would be a shiverer" on the day he was sent to Kirkinner. He had heard the evidence of Mr. Deans in Court, and held that the symptoms described by that gentleman were consistent with those of a "shiverer." (Q.) "You are perfectly certain that the horse is a bad "shiverer?" (A.) "I'll stake my reputation on that."

Mr. Edgar, M.R.C.V.S., Mr. Forbes, M.R.C.V.S., and Mr. Taylor, F.R.C.V.S., of Messrs. Dobbing and Taylor, corroborated Mr. Bell's evidence. They were equally emphatic in declaring that there was no trace of any swelling, cicatrix, or place bare of hair along the side of the spinal column or anywhere else on the horse. Mr. Taylor was subjected to a rigorous cross-examination by Mr. Macphail. The witness admitted having written a letter, produced, to Mr. Deans, saying, "After having heard what Mr. Dobbings says about the animal, it seems incredible that even if it was a slight shiverer at the time of sale it could be in such a state without having sustained an injury." Witness said he had changed his opinion. (Q.) "Why—what has made you change?" (A.) "I think Mr. Deans and Mr. Dobbings' statements exaggerated the animal's condition. (Q.) "Why have you altered your opinion?" (A.) "I've been reading up the subject." The station agent at Kirkinner deponed that he assisted in trucking the horse on the return journey from Kirkinner to Bishop Auckland, and that he was properly secured and looked all right and perfectly uninjured then. Principal M'Call's evidence, which had been taken on commission the day before, was then read to the Court. The Principal certified that he had examined the horse on 19th March and found the animal was a bad "shiverer." It was sometimes very difficult to detect the symptoms of "shivering," and a shiverer might go about apparently all right for a time, even though tested by the usual tests, without showing the characteristic spasmodic action of the hind limbs and tail, but in this case the horse gave clear and unmistakable symptoms of being a bad "shiverer."

The proof was then concluded. Counsel for the parties were heard on Friday, and his Lordship made avizandum.

In the Court of Session on Saturday, June 22nd, Lord Mackenzie gave his decision in the action by Stephen Lee, Birtley Farm, near Bishop Auckland, Durham, against James A. Wallace, Claycrop, Kirkinner, Wigtownshire. The pursuer sued for £42, the price of a three-year-old stallion sold by him to the defender on 22nd January, 1907. The defence was (1) that the pursuer gave an express warranty that the horse was free from "shivering," and that it afterwards proved to be a "shiverer"; and (2) that the pursuer agreed to take the horse back if it were returned in the same condition it was in when despatched, and the horse was so returned. Lord Mackenzie held that the pursuer was not bound to take the horse back, and found him entitled to decree for the sum asked for with expenses. His Lordship, after a statement of the case, said:—

The property in the horse passed when the price was fixed, the subject of sale being ascertained. The property having passed, the risk was transferred to the buyer. *Res perit domino.* The horse belonged to Wallace, and anything which thereafter happened to diminish its value would fall on him, not on Lee, who had no further concern with it. There having been no warranty there was no suspensive condition, as in *Kinnear* v. *Brodie*, 3 F. 540. Assuming it, therefore, at this stage to be the fact that the horse was a shiverer when Wallace bought him, the maxim *caveat emptor* would apply; he bought him with no warranty, and took any risk attaching to him, He was therefore not entitled to stop payment of the cheque or reject the horse. Lee would have been justified in refusing to have anything to do with the horse. He could have sued Wallace for the price, and Wallace would, in my view, have been bound to pay. The defender, however, argues that the pursuer agreed to take him back. The agreement is contained in the letters. The defender says that under it the horse was to be taken back if returned in the same condition; that he was returned in the same condition, because he was a shiverer when he left and a shiverer when he returned.

The previous history of the horse is spoken to not only by the Lees, but by neighbours. According to them there had never been the slightest trace of his being a shiverer. A neighbour named Fox met him on the way to the station on the 23rd of January, and says he was in the pink of condition. Smith, the live stock auctioneer, a good witness, saw him the same morning. and says he was perfectly right. Wade, the railway porter at Bishop Auckland, says when he was boxed he was in condion and in high spirits.

What was his condition when he came back? Mark Lee says the horse was nothing to compare with what

he was when sent away. Wade, the railway porter, said he didn't look like the same horse. He led him from the box, and says he had difficulty in moving. The pursuer says he came back a complete cripple. The veterinary surgeon Deans, who saw him at 9 p.m. on 30th January, says that when he saw him the horse was like a hare that had been shot; he could hardly stand. Fox saw him the day he was put into the livery stable, when he was trailing his legs as if his back was broken. Boynton, the ostler at the livery stables, got the horse on the 30th of January, and remained in charge of him till he was sold three or four weeks later. He says the horse was very weak in his hindquarters. He also had a very tender place across his quarters. Smith also saw him in the livery stable, and says he was generally crippled, especially in the hindquarters.

The defender maintains that the horse which exhibited these sympoms when returned was in the same condition as when he was sent away. Any of the witnesses who saw the horse go and return would repudiate the idea. But it is maintained (1) upon a construction of the letter of 30th of January that the pursuer waived his right to refuse delivery of the horse, even if he proved to be a shiverer; and (2) that as the disease was on the horse when he left, he was returned in the same condition, because what had happened in the interval was merely the development of that disease.

As regards the first point, I do not think the letter can be construed in the way contended for. As regards the second, I think the stipulation involved that the pursuer was not bound to take delivery of a crippled horse when he sent out one that moved freely and well. It would not, I think, have been open to Lee, under his offer, to refuse delivery of the horse, when it reached Bishop Auckland, had he been suffering from some transitory ailment. That, however, was not the nature of the disease.

It is at this stage of the case that there is a conflict of opinion as to what the horse was suffering from when he came back. The pursuer's endeavour at the proof was to show that the horse was not a shiverer, but was semi-paralysed when he arrived at Bishop Auckland, owing to some injury to the spine, and evidence was led as to there having been a swelling in the lumbar region. The defenders experts, by whom the horse was examined on 4th, 5th and 11th February, 8th and 16th March, and 1st April, are clear that the horse was and is a shiverer. I have no hesitation in preferring their evidence to that adduced for the pursuer. Mr. Bell made an excellent witness, and Professor McCall's opinion is entitled to great weight. In the view I take of the case, however, the fact that the horse was not returned to Bishop Auckland in the same condition as when he left, whether the change was due to the development of shivering or not, was sufficient to entitle the pursuer to refuse to accept delivery. He was then not Lee's horse but Wallace's.

I think it is doubtful whether the horse was suffering from anything more than shivering when he came back. What was observed on his arrival at Bishop Auckland Station would seem to indicate injury in addition. The way he trailed his legs is not consistent with the ordinary symptoms of shivering, and there is evidence of local injury, which, however, passed away. However that may be, what was permanently wrong with the horse was due to shivering.

To summarise the view I take of the case. The horse when sold was moving perfectly well; the defender has failed to prove that he got any warranty; therefore he took the risk of anything that should happen to the horse; the horse broke down after he was his property; the pursuer only agreed to take him back if he arrived in the same condition as he went; when returned, an incurable disease had been developed in him from a cause which supervened after he had ceased to belong to the pursuer. I am therefore of opinion the pursuer was not bound to take him back.—*The North British Agriculturist.*

LIVERPOOL UNIVERSITY VETERINARY MEDICAL SOCIETY.

The quarterly meeting was held in the Pathological class-room at the University on Friday, May 10th. There were present the Senior Vice-President, Mr. Henry Sumner in the chair. Messrs. A. Walker, Berry, Ball, Hewetson, Holroyd, Howson, G. H. Locke, Stent, Wolstenholme, Godber, Maguire, W. J. Fletcher, James Sumner, Prof. Owen Williams, Brooksbanks, W. Woods members; Mr. T. S. Atkinson visitor, and the Secretary.

Apologies of absence were read from Messrs. Augustus Taylor, Richard Hughes, T. C. Fletcher, J. P. Heyes, and W. Packman.

The minutes of last meeting were read and confirmed.

The CHAIRMAN acquainted the members of the arrival home in improved health of the President, an announcement which was received with acclamation.

Mr. F. H. LEECH, M.R.C.V.S., of Crewe, was unanimously elected a member of the Society.

Mr. J. G. Godber, M.R.C.V.S., was elected to represent the Society at the Douglas Congress of the Institute of Public Health.

The meeting was devoted to discussion of interesting reports of clinical cases submitted by Prof. Williams, Mr. Henry Sumner, and Mr. Wolstenholme, Mr. Sumner's cases being illustrated by photographs supplied by Mr. James Sumner. The cases provoked a lively discussion in which Messrs. Fletcher, Woods, A. Walker, and the Secretary took part.

JNO. T. SHARE-JONES, *Hon. Sec.*

PARLIAMENTARY.

In the House of Commons, Tuesday, June 25:

SWINE FEVER.

Mr. BOLAND (Kerry, S.) asked the hon. member for South Somerset, as representing the President of the Board of Agriculture, could he state whether there had ever been a well-authenticated case of swine fever having been imported into Great Britain from Ireland; if so, could he state when the importation took place; whether he was aware that swine fever had been much more successfully dealt with in Ireland than in Great Britain; could he state who was responsible for the passing of the Order restricting the importation of Irish pigs; and what other restrictions, if any, on the movement of animals between Ireland and Great Britain were in force.

Sir E. STRACHEY (Somerset, S.): We are aware of over 100 cases in which swine fever has been found to exist in pigs which had quite recently been landed from Ireland, and in which the circumstances place it beyond reasonable doubt that the infection was contracted in that country. Since the present restrictions have been in force only one or possibly two such cases have occurred. The number of outbreaks of the disease in Ireland is less than the number in great Britian, but in the differing circumstances of the two countries no fair comparison can be made. The Board of Agriculture are responsible for the regulations governing the importation of animals into Great Britain, and the Irish Department for those governing importation into Ireland, and I may point out that, while we have only imposed restrictions with regard to pigs, those of the Irish Department extend to alll classes of stock, including horses.

Mr. BOLAND asked who was responsible for the passing of the Order, and whether the law officers of the Board of Agriculture had been consulted before it was put into force.

Sir E. STRACHEY: The Board of Agriculture, of course, is responsible.

Mr. BOLAND: Was the opinion of the law officers to the Board of Agriculture taken?

No answer was given.

REVIEW.

The Horse.

We have received the seventh volume of this work, edited by Professor Axe. It runs to a little short of 200 pages and is, as usual, copiously illustrated, having 88 text illustrations, all well done, and 13 full page plates —four in colours—of which it is impossible to speak too highly.

The volume commences with a continuation from the previous volume of a section on Medicines and Therapeutics, and here we first meet some prescriptions which were probably the cause of the rather stupid outcry raised when the first volume appeared. They are not likely to do any harm, and similar ones may be found in scores of books published since 1800.

The next section is devoted to Nursing, and will afford hints to experts as well as novices.

Then Poisons and poisoning are dealt with in a useful and practical way.

Veterinary Hygiene forms the next section, and in the space allowed is treated as well as it could be. This article is equally valuable to students and practitioners.

The last 30 pages are descriptive of operations, and the portion devoted to means of restraint is very good. The special operations described are not many—neurectomies, firing, castration and ovariotomy only appearing in this volume.

The Retirement of Professor Green.

We regret to record that Professor J. Reynolds Green, ScD., finds it necessary to relinquish the chair of botany in the School of Pharmacy. Dr. Green, who has held the post of Professor of Botany to the Pharmaceutical Society since the retirement of Professor Bentley, now feels that he would like to devote more time to scientific research, and the announcement of his retirement will be received with regret, not only by the students who during the last twenty years have received their education in botany under his guidance, but by all who are connected with the Society. At the time of his appointment, in 1887, Professor Green held the degrees of B.Sc. (Lond.) and B.A. (Cantab.), as well as the Scholarship of Botany at Trinity College, Cambridge. He was also acting demonstrator to the Professor of Physiology at Cambridge. Prior to his appointment he had published some important papers giving the results of original work on the proteids, and during the past twenty years he has continued to display marked activity in botanical research. He received the degree of Sc.D. (Cantab). in 1894, and, in recognition of his work, he was elected a Fellow of the Royal Society in 1895, shortly after which date he published his "Manual of Botany." Prof. Green was for some time one of the Society's examiners, and has also been examiner in botany to several other bodies.—*Pharmaceutical Journal.*

Lord Lister—The City Freedom Conferred.

Very picturesque and interesting was the ceremony, in the Council Chamber of the Guildhall on Monday, of presenting the City's highest mark of approbation to Lord Lister, O.M., M.D., F.R.S., D.C.L., and LL.D. The blue-robed councillors and the aldermen in their red robes were gathered in full force. All the ceremonies were observed, and the spectators in the well-filled galleries looked down with delight on the pageant in honour of the guests's great services to his fellowmen.

After the principal clerk to the Chamberlain had read his archaic announcement, ending with "he (Lord Lister) would pay his scot and bear his lot," the Chamberlain said that it was just a century ago that the City paid its tribute of honour to the medical profession by presenting the freedom to Dr. Jenner. Well might Lord Lister, in the autumn of his life take to himself the words of Lord Byron:

> No lengthen'd scroll, no praise-encumbered stone,
> My epitaph shall be my name alone;
> If that with honour fail to crown my clay,
> Oh! may no other fame my deeds repay;
> That, only that, shall single out the spot,
> By that remember'd, or with that forgot. (App.)

That was the kernel of the Chamberlain's speech; but he put in an appropriate personal touch at the end by saying that some seventy-five years ago there lived in adjacent houses in Upton, Essex, two Quakers, Joseph Jackson Lister and Joseph Dimsdale (the Chamberlain's grandfather). And the "little Joseph Lister" of those days, still remembered by one of the Chamberlain's family, was the Lord Lister of these.

Then came the right hand of fellowship, the presentation of the gold casket containing the freedom; and his lordship said, in a voice marked by emotion, "I thank you, my Lord Mayor and gentlemen, from the bottom of my heart. The work in which I have been privileged to be engaged has brought its own reward; but I value more than I can say the gift of this greatest civic distinction in the world." (Applause.)

The Sheriffs, Aldermen, and some others were then presented to Lord Lister, and the proceedings terminated.—*Westminster Gazette.*

The Value of Tuberculin.

The Secretary of the Pasteur Vaccine Company, Ltd. writes to us as follows:—

We have read in your paper a paragraph referring to the value of tuberculin reading as follows:—"At last week's sitting of the Société des Vétérinaires de France, in Paris, the Director of the Laboratory of Buenos Ayres declared that tuberculin was of no use for its alleged purpose of diagnosing or remedying tuberculosis in cattle and two of the leading veterinary surgeons of France, Prof. Moussu and Prof. Arloing, concurred with this statement."

As we have before us a full account of the proceedings concerning this matter we think it only due to the scientific reputation of the gentlemen whose names you mention that your attention should be called to the following translation of certain extracts from the "compte-rendu," published in the *Recueil de Médecine Vétérinaire*, of Feb. 28th, 1907.

Translation.

J. Lignieres (Director of Buenos Ayres Laboratory): "My report should not be considered as detracting from the efficacy of tuberculin, I said at the commencement, and intentionally, that it is a marvellous diagnostic. The failures that I have pointed out are only rare exceptions; the rule, on the contrary, is that tuberculous animals react on receiving a normal dose of tuberculin, and still more surely when the dose is strong, or when it is repeated in increasing quantities. But the point I wish to call attention to is the possibility—perhaps more frequent than is supposed—of tuberculous animals not reacting to tuberculin, and with which clinical examination is powerless. On the other hand, I have sufficiently insisted upon the enormous value of tuberculin for the diagnosis of tuberculosis that it is unnecessary for me to do so further."

Prof. Moussu: After declaring himself in accord with Prof. Lignières, terminated the relation of a case that he had had under his notice by saying, "that is why I conclude by saying that tuberculin is still our best means of investigation, but that it should not be considered absolutely and always infallible."

Pnof. ARLOING, in the course of his remarks, said: "Far be it from me to say that diagnosis by tuberculin has lost its practical value. I consider it, on the contrary, an excellent diagnostic agent. Our regretted colleague Nocard, who was among us the apostle of tuberculin, has shown that certain accusations brought against tuberculin, has shown certain accusations brought against tuberculin were false: he reduced the number, but could not refute them all, and he was content to say that tuberculin was a raacting agent nearly infallible.

We think the above extracts will suffice to reassure any of your readers who may have been led to doubt the efficacy of tuberculin, and would merely add that a careful perusal of the proceedings of the meeting at which this important question was discussed will reveal that the leaders of French veterinary science, so far from considering tuberculin as having lost its practical value, are still unanimous in considering it as a diagnostic agent "nearly infallible."

An Asylum Meat Supply.

An interesting discussion regarding the meat supply took place at the last meeting of the Committee of Management of Tyrone and Fermanagh Asylum, which is worth reproducing here. Dr. Carre, resident medical superintendent, reported that on May 17th a cow slaughtered by the contractor was found to have tuberculosis in both lungs. He refused to accept it, but the Farm Committee having been called in, decided that it should be used in the house. With reference to this matter Messrs. James Lyons and John Matthews, J.P., members of the Farm Committee, reported that they had examined the animal in the presence of Dr. Carre and Mr. Gregg, V.S.. Belfast, and were satisfied that the glands were sound and that the lungs were only slightly affected. Having before them the report of Mr. Barklie, county analyst, they were of opinion that the meat was fit for use, and recommended it to be used. Dr. Carre said he and Dr. Thompson were strongly opposed to such meat being used. The animal was affected in both lungs. Mr. Matthews produced a report of the Royal Commission on Tuberculosis, and held, from the instructions therein, that the meat was fit for use. So far as he could see the Commission did not think a medical officer a proper person to examine meat, and was of opinion that it should be done by a veterinary inspector. The contractor in this case brought a veterinary surgeon from Belfast, and he passed the meat. Dr. Carre said the officials were complaining against eating this meat, and if any of them got tuberculosis it would place him (Dr. Carre) in a very awkward position. Mr. Jordan, M.P., said it would be better to protect the officials from the dangers of eating this meat. The Chairman thought in cases of dispute it would be better to send for a veterinary surgeon. Ultimately, the Committee decided that when questions as to the quality of the meat arise in future, the veterinary inspector who acts for Derry Corporation should be sent for.—*M. T. J.*

Cabman and Motor Omnibuses.

Amusing evidence was given by a cabman in Southwark County Court on July 1, when Judge Willis, K.C. awarded Charles Watson, a cab proprietor, of Roupell Street, Southwark, £33 7s. and costs against the London General Omnibus Company, Limited, for the loss of a bay mare, as the result of one of the defendants' motor omnibuses colliding with it in Charing Cross Road on January 31.

George Taylor, a cab driver, told the Court that when he saw the motor omnibus he said "it was all Lombard Street to a China orange that there would be a murder." (Laughter.)

Mr. Ricketts (for the defendants): You don't object to motor omnibuses?—The Witness: Me? Let 'em all come. (Loud laughter). They won't make me any poorer.

But the more they come the fewer fares fares you will get?—Oh, no, it isn't that. The quicker they come the quicker they will go. (Laughter.)

You look forward to motor omnibuses going?—The Witness (confidently): I am sure they will go. Why, isn't the money of the shareholders melting like butter in the sun? (Laughter.)

His Honour: You aren't a shareholder?—No, thanks. (Laughter). I haven't got the money.

His Honour: I congratulate you upon not having money for such investments. They bring anxiety and loss.

The witness (emphatically): Yes, and murder, too, sir. (Loud laughter). They are a grand foreign invention for getting rid of people. (Laughter.)—*Daily Mail.*

An Advertisement.

The following is from *The Stamford Mercury* of June 21st :—

GEORGE HOTEL YARD, STAMFORD.

J. MARTYN COLLINS and CO. have received instructions from Professor J. Brodie Gresswell, F.R.C V.S., to SELL by AUCTION, on Monday next, June 24th, 1907, as above (without reserve), a large quantity of his renowned CATTLE and HORSE MEDICINES, including Colic, Fever, Tonic, Inflammation and Calving Drenches, Condition and Pig Powders, White and Black Oils and Embrocations; also special Mixtures for Husk and Hoose in cattle, &c., &c.

N.B.—The above Medicines have been personally prepared by Mr. Gresswell, who has a great reputation as a Veterinary Surgeon, and are being sold in this manner as samples.

Sale to commence at 1.45 o'clock.

Personal.

A. M. MACDOUGALL, veterinary surgeon, Campbeltown, was treating a colt on Thursday, June 20th, at the farm of Auchnafaad, when the animal struck out and broke his leg at the ankle. Mr. Macdougall was at once conveyed to Muasdale, where the injury was temporarily dressed, enabling him to proceed home.

Mr. A. CORNISH BOWDEN is Hon. Sec. and Treasurer to the Beckenham Dog Show, which is to be held on Wednesday, 10th inst., and Prof. Hobday, Messrs. A. W. Reid, J. McRae Frost, and A. Cornish Bowden are the Hon. Veterinary Surgeons.

Mr. SIDNEY VILLAR has returned to England.

In connection with the appointment of a veterinary surgeon to devote his whole time to the requirements of Greenock slaughter-house, Mr. J. D. Pottie, M.R.C.V.S., who has hitherto done the work, has written to the Town Clerk taking exception to the action of the local authority. He formally places his resignation in the hands of the Corporation and says that—"If the intention in making this hurried and, I think, unnecessary appointment is to indicate a responsibility on my part for the recent alleged defects in Greenock slaughter-house, I do not accept any responsibility, and regret that yonr Slaughter-house Committee have not given me support as a Corporation official."—*Isle of Man Times.*

ARMY VETERINARY SERVICE.

From *London Gazette*, July 2:

Extract from Despatches.

Brigade Office, Northern Nigeria Regiment,
West African Frontier Force, Zungeru.
May 20, 1906.

. . . . It is difficult to particularise where all did well, but the following deserve special mention:

Staff.— . . . . . Lieutenant and Veterinary Surgeon H. C. Welch, Transport Officer: . . . .

A. LOWRY COLE, Colonel,
Commandant, Northern Nigeria Regt.

[We believe that Mr. H. C. Welch, A.V.C., was Gazetted Captain in April, 1906. He is seconded for service under the Colonial Office.]

CORRESPONDENCE.

A COMPULSORY ANNUAL REGISTRATION FEE.

Sir,

Prophecy is often a thankless task. I do not want to belittle the influency of our veterinary societies, but it seems questionable whether the opinions expressed at the Central V.M.S. will reflect the feeling of the profession as regards the finances of the R.C.V.S.

I think the matter of a compulsory annual registration fee has been raised on more than one occasion already. Quite recently I believe Major Butler raised the question. It was discussed at the various veterinary societies and almost without exception declined with thanks. I am expressing no opinion about the unselfishness of this attitude or its desirability.

Personally, I think this question ought to be looked at trictly from a financial point of view. "Sanguine finance has caused more unhappiness and disaster than bad cooking." If the income of the R.C.V.S. was increased by £3,000 a year (this occurring, I am afraid the Register would soon show depletion) it would not be long before it would be suffering from over-capitalisation bringing all the well-known evils in its train. Of the two evils, over and under capitalisation, the former is far the worse.

Thirty thousand pounds of income in ten years! What are you going to do with it, even if you get compulsory collecting powers?

There is an old saying "aim high because it allows room for dropping," but it may be added "avoid Don Quixote methods in everyday life."

I have seen no reasonable or rational arguments advanced yet as to why *the registration fee* should not be raised, (surely this, without increase of students, college, and examination fees would not lessen the number entering the colleges), why *a voluntary subscription* for one, two, three, or four years should not be taken, and why *an annual registration fee* if necessary should not be imposed on *those entering the profession*.

To compare us with solicitors is another of those lack of proportion ways of looking at things. We can't charge 6s. 8d. for every half hour's work we do, or every bit of advice we give. We can't get 3s. 4d. for writing a business etter. We can't get a big fee for conveyancing or County Court work. I don't say we shouldn't do all these things if we could. I am only looking at facts. We never come into such close and intimate contact with a client as a solicitor or have such means of knowing the client's exact financial position. Let us have a good library by all means, but let us get it gradually and not all at once.

History always repeats itself. The way with the registered practitioner will recur again. The men *in* the profession have got the advantages of the Charter. When the Charter is altered or renewed in a different form the chief burden will have to be put on those coming into the profession, just as the burden of the registered practitioner was put on the qualified men in the old days.

The present generation will find it hard to beat the business methods of their fore-fathers if they wish to combine human statesmanship with financial acumen, and for true success to be achieved the two things must go together.—Yours truly,

G. MAYALL.

VETERINARY ADVENTURERS.

Sir,

Without fear of contradiction I think I am safe in asserting that the subject of veterinary adventurers has not before been discussed in your columns.

It is not a large subject but worthy, in my opinion, of attention, as the harm done by such men to our profession individually, and as a whole, cannot be over-estimated.

The procedure of the adventurer is pretty much as follows: Usually a death has taken place in a town of some veterinary surgeon. The practice is sold, but in addition another man comes on the field, and more often than not the profession is more than sufficiently represented already. Of course there is nothing wrong in a man starting practice if he intends to stay and make a reputation for himself. The adventurer, however, means nothing of the kind. His game is to gather a few clients by any method whatever, foul or fair, and in a year or two sell if he can and clear out. His usual send off is "May he die in a ditch," and this not only by the members of the profession in the particular town, but by the inhabitants almost to a man.

The new man arrives with great *éclat*, blowing of trumpets, etc. Evidently there is some money about, for he starts driving a pair of horses, perhaps has seven or eight others in his stable at the start, does a little dealing, don't you know (no harm in horse dealing of course if fairly done). His chief recreation, however, is in visiting hotel bars where he soon makes numerous acquaintances, and in a short time he gets a few clients. As a rule his education is poor, and you hear expressions drop from him in this fashion, "I ain't taking nothing," or "no never," "no more."

In a short time, especially if he finds he has landed himself in a tight place, nothing is too low in the way of touting, and a favourite thing for him to do is to drive to a place where a horse is for sale to examine for a client (?) Making little of his brother practitioners is also another pastime with remarks such as "he don't know nothing," and so after about two years he has run his race (for the present) but for some time before this he has been trying to sell his practice, giving as his reason that he is going in for farming, or he has a bad leg and absolute rest is advised (the wife's health will do for another time). Eventually, after several attempts at selling he succeeds in finding a buyer and—*mirabile dictu*—gets often a large sum of money for his "connection."

During his stay in a town he may have been reported many times to the Registration Committee for disgraceful conduct, but generally manages to wriggle out, and it is in regard to this more particularly that I have taken up my pen on the subject. It would be well for the Committee, when some member has been reported for disgraceful conduct, to enquire into his previous history, and should he perchance be a "bird of passage" to investigate the case with perhaps extra care."

In conclusion, I again say that the mischief wrought to our profession individually and as a whole by such a case as I have related (and it is not over-painted) cannot be over-estimated. The dignity of the profession is lowered, the members of the profession in the same town are hurt a little, the adventurer is little benefitted, whilst the buyer of the "connection" is perhaps worst hit of the lot by not finding the practice what it was represented to be.—Yours etc.

M.R.C.V.S.

PRELIMINARY NOTE ON NEUTRAL RED ACTION IN THE INFECTED RED CELLS OF PROTOZOAL DISEASE. Capt. F. S. H. BALDREY and W. A. MITCHELL.

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The Lincoln and Stamford Mercury, The Belfast News Letter, Isle of Man Daily Times.